

REMARKS

In response to the Office Action mailed October 10, 2001, Applicants respectfully request reconsideration. To further the prosecution of this application, each of the objections and rejections set forth in the Office Action has been considered and addressed below. The application as now presented is believed to be in allowable condition.

Claims 1, 2, 8-26, 41, 42, 45-48, 50-54, and 56-76 are pending in this application, of which claims 1, 41, 42, 45, 51, 66, 68, 74, 75, and 76 are independent claims. In this amendment, claims 1, 64, and 68 are amended and claims 74-76 are added.

I. Telephone Interview with Examiners

Applicants' representative appreciates the courtesies extended by Examiners Wilson Lee and David Vu in granting and conducting a telephone conference on February 19, 2002. During the telephone conference, Applicants' representative presented to the Examiners a general overview of Applicants' invention as recited in the claims. Additionally, Applicants' representative and the Examiners discussed at length the scope and content of the cited Phares reference (U.S. Patent No. 5,420,482), as well as the basis for the claim rejections set forth in the Office Action. Finally, Applicants' representative and the Examiners discussed proposals for amendments to some of the claims that would move the prosecution of the case forward toward allowance. The issues discussed during the telephone conference are summarized below.

A. Overview of the Present Invention

Applicants' representative first summarized for the Examiners some of the salient features of various embodiments of Applicants' invention. For example, Applicants' representative explained that one embodiment of the invention is directed generally to methods and apparatus for illuminating one or more objects with variable color light generated by an LED system, for the purpose of attracting attention to such object(s) from an observer.

In particular, in one embodiment, variable color light generated by an LED system is projected onto one or more objects of interest so that the light affects or interacts with (e.g., is absorbed by and/or reflected from) the object(s). An observer viewing the object(s) then sees at least some of the light and is attracted to the object(s) by the effect of the light. In one aspect, the light generated by the LED system and projected onto the object(s) is sufficiently bright such

that the observer may readily see at least some of the light indirectly via the object (e.g., reflected from the object or passing through the object), rather than directly from the LED system.

In some embodiments, a selective color interaction between the light projected onto an object and the object itself is utilized to produce various effects that facilitate attracting attention to the object. For example, an illuminated object may have particular characteristics such that the object selectively absorbs one or more colors, while selectively reflecting one or more other colors.

In view of these characteristics, one embodiment of the invention is directed to methods and apparatus that illuminate the object with variable color light generated by an LED system, in which the color of the generated light is varied over a period of time. In one aspect of this embodiment, an observer may perceive a change in color associated with the object being illuminated by the light, due to the selective color interaction between the generated light and the object (e.g., different colors are reflected from the object at different times). In yet another aspect, the observer may perceive an illusion of motion in at least a portion of the object being illuminated by the light, due to the selective color interaction between the generated light and the object.

Applicants' representative explained to the Examiners that several embodiments of the invention are useful for a variety of advertising, retail, and consumer sales purposes. In particular, Applicants' representative pointed out to the Examiners that examples of objects that may be illuminated in the present invention include, but are not limited to, various display cases (e.g., retail displays), various containers (e.g., beverage containers), vending machines, articles of clothing, and the like.

In providing a brief overview of the invention, Applicants' representative respectfully reminded the Examiners that the foregoing summary is provided merely to assist the Examiners in appreciating various aspects of the present invention, and that each of the claims is not necessarily limited to the various features discussed above. Accordingly, Applicants' representative requested that the Examiners consider the language of each of the independent claims individually and address each on its own merits, as discussed further below.

B. Discussion of the Phares reference

Next, Applicants' representative and the Examiners discussed the Phares reference. In particular, Applicants' representative pointed out to the Examiners that the teachings of Phares are limited to examples of lighting apparatus that are viewed directly by an observer. In particular, Phares makes no mention of any lighting apparatus or system that may be used to illuminate other objects. More specifically, it is particularly noteworthy that nowhere in the reference does Phares disclose or suggest any form of lighting apparatus or system that is used in combination with other objects, such as various display cases (e.g., retail displays), various containers (e.g., beverage containers), vending machines, articles of clothing, and the like.

Rather, Phares merely discloses lighting systems that may be used primarily for decorative purposes, such as Christmas lighting (col. 7, lines 56-58). Phares also discloses a display sign such as the "happy face" display shown in Phares' Figure 10 (col. 8, lines 50-62), as well as a tail light assembly used in automotive lighting (col. 9, lines 4-18). In each of these embodiments, the lighting system of Phares may itself produce illumination; however, nowhere in the reference does Phares disclose or suggest that the illumination produced by such a lighting system is designed to illuminate (e.g., project light of sufficient brightness onto) an object or otherwise interact with the object in any way.

Applicants' representative also pointed out to the Examiners that nowhere in the reference does Phares mention the use of LEDs in the disclosed lighting systems. Rather, Phares discloses only the use of "lighting elements" in the lighting systems, and at no point gives a single specific example of an LED "lighting element" that would be suitable for the disclosed lighting systems.

C. Discussion of Claim Rejections Under 35 U.S.C. §103

Next, during the telephone conference, Applicants' representative and the Examiners discussed the rejection of the claims under 35 U.S.C. §103(a) as allegedly being obvious over Phares.

1. Discussion of Obviousness Criteria

First, Applicants' representative respectfully reminded the Examiners of the various criteria for supporting a rejection under 35 U.S.C. §103. In particular, Applicants' representative

explained that, as set forth in MPEP § 2143, three criteria must be met in order to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the cited reference itself, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. The teaching or suggestion to modify the reference, as well as the reasonable expectation of success, must both be found in the prior art and not based on Applicants' disclosure. Third, the reference must teach or suggest all of the claimed features.

In view of the foregoing, Applicants' representative submitted to the Examiners that the Office Action failed to establish a *prima facie* case of obviousness, because: 1) there is no suggestion or motivation in the prior art to modify Phares in the manner suggested in the Office Action; 2) there is no reasonable expectation provided by the prior art that any such modification would succeed for its intended purpose; and 3) Phares is completely silent with respect to (i.e., fails to teach or suggest) one or more features of each of Applicants' independent claims. These issues are discussed in greater detail below.

2. Discussion of the Stated Basis for the Claim Rejections

During the telephone conference, there were essentially two primary areas of discussion relating to the basis for the claim rejections as outlined in the Office Action. First, Applicants' representative and the Examiners discussed statements made in the Office Action regarding "intended use." Second, Applicants' representative and the Examiners very briefly discussed Phares' lack of disclosure or suggestion in connection with using LEDs as lighting elements.

a. Claim Rejections based on "Intended Use"

Applicants' representative asked the Examiners for clarification in connection with various statements made in the Office Action regarding "intended use." For example, in paragraph 2 on page 4, the Office Action states that:

Phares... essentially discloses the claimed invention but fails to explicitly disclose the specific usage as claimed such as *illuminating the floor, an aquarium, an information board, etc.* (emphasis original). However, it would have been obvious to one of ordinary skill in the art to use Phares' invention to illuminate any object in order to provide brightness to the observer on the object. Since Phares fails to limit the choice of all kind of usage, the implementation of such

specific usage is not restricted. Any other usages should be considered as intended uses.

Additionally, paragraph 3 on page 5 of the Office Action states:

Phares... essentially discloses the claimed invention but fails to explicitly disclose the specific usage as claimed such as positioning the system to illuminate a *non-opaque container, vending machine or positioning the system on a piece of clothing or shirt* (emphasis original). However, it would have been obvious to one of ordinary skill in the art to use Phares' invention to illuminate any desired object in order to provide brightness to the observer from the object. Since Phares fails to limit the choice of all kind of usages, the implementation of a specific usage is not restricted. Any other usages should be considered as intended uses.

Furthermore, in item 8 on page 6, the Office Action reiterates that "since Phares fails to limit the choice of all kind of usages, using his invention in other location [sic] is considered as intended use."

During the telephone conference, Examiner Lee clarified for Applicants' representative the Examiner's position with respect to "intended use;" namely, Examiner Lee believed that it would have been obvious to use Phares lighting system, in combination with any of a number of "old, well-known or common objects," for any number of unspecified illumination applications that involved such objects. Amongst the objects deemed "old, well-known or common" by Examiner Lee were objects such as those disclosed by the Applicants' specification and recited in Applicants' claims (e.g., a retail display, a vending machine, an article of clothing, etc.).

Applicants' representative respectfully disagreed with Examiner Lee's position with respect to "intended use" for a number of reasons.

First, Applicants' representative pointed out that the Examiner had not indicated any authority (e.g., MPEP provision, statute, rule, case law, etc.) which provided support for his assertions regarding "intended use" as a proper basis for an obviousness rejection, in the absence of specific teachings in the prior art.

Second, Applicants' representative reminded the Examiners that patentability is not negated merely because one or more elements recited in a claim may be "old, well-known or common." In particular, the patent statute, various portions of the MPEP, and a significant body of case law specifically establish that using an old or known object in a new, useful, and non-obvious way (i.e., a new and non-obvious method or process involving known objects) is indeed patentable (35 U.S.C. §§100(b), 101, 102, 103). Similarly, using one or more old or known

objects in a novel, useful, and non-obvious combination is indeed patentable (35 U.S.C. §§101, 102, 103).

For example, in connection with patentable methods or processes involving known features or objects, MPEP §2106 (II) (C) specifically sets forth that a new combination of steps in a process may be patentable, even though all of the constituents of the combination were well-known and in common use before the combination was made. *See, e.g., Diamond v. Diehr*, 450 US 150, 188 (1981). Similarly, in connection with patentable apparatus claims, MPEP §2105 establishes that a novel and non-obvious combination of old elements is patentable. *See, e.g., Diamond v. Chakrabarty*, 447 US 303, 308 (1980) (“The production of articles for use... prepared by giving to these materials new forms, qualities, properties, or *combinations*... is a ‘manufacture’ under 35 U.S.C. §101.”) (emphasis added).

Third, Applicants’ representative respectfully pointed out that Examiner Lee appeared to be impermissibly using hindsight in formulating the “intended use” argument. Specifically, the Examiner seemed to be using Applicants’ own disclosure (e.g., by pointing to “old, well-known or common” objects disclosed therein) to establish the motivation to modify Phares, and the reasonable expectation of success in modifying Phares. This is clearly prohibited by MPEP §2143 (“The teaching or suggestion to modify the reference, as well as the reasonable expectation of success, must both be found in the prior art *and not based on Applicants’ disclosure*.”) (emphasis added).

In particular, as discussed above (and in greater detail below in connection with each of the independent claims individually), Applicants’ representative again pointed out that Phares is completely silent with respect to one or more elements of each of Applicants’ independent claims; namely, Phares neither discloses nor suggests a retail display, a vending machine, a non-opaque container, a beverage container, an article of clothing, a stencil, a gobo, or a display case. At least one of the foregoing objects is recited in each of Applicants’ independent claims.

Additionally, nowhere in the reference does Phares teach or suggest using Phares’ lighting system to illuminate other objects of any kind. There simply is no teaching in Phares that remotely suggests that the disclosed lighting system would reasonably be expected to be successful at illuminating another object so as to draw an observer’s attention to the object. Rather, the teachings of Phares are limited to lighting systems which, at best, draw attention to *themselves*. Specifically, there is no disclosure or suggestion whatsoever in Phares that would

lead one of ordinary skill to reasonably expect that the lighting system of Phares would provide a sufficient brightness to adequately illuminate another object.

Accordingly, for at least the foregoing reasons, Applicants' representative respectfully submitted to the Examiners that the claim rejections set forth in the Office Action based on "intended use" were improper, and failed to satisfy the criteria for establishing a *prima facie* case of obviousness. Therefore, these rejections should be withdrawn. While at least Examiner Vu indicated that perhaps there were some weaknesses in the "intended use" rejections, the Examiners indicated that they would reserve final judgment on the allowability of the claims pending review of this response, and would consider each of the points made by Applicants' representative during their review.

As a final note regarding "intended use," the discussion of "intended use" during the telephone conference, as indicated above, involved Examiner Lee's assertion that allegedly it would have been obvious to use Phares' lighting system in combination with any of a number of "old, well-known or common objects," for any number of unspecified illumination applications that involved such objects. Hence, the Examiner's position appears to be based, at least in part, on alleged common knowledge in the art, or "well-known" prior art (pursuant to MPEP §2144.03), which would purportedly have motivated one of ordinary skill to use the lighting system of Phares to illuminate other objects.

Applicants' respectfully traverse any assertion that any prior art exists that would have provided motivation for such a modification to Phares. Accordingly, if the Examiner wishes to maintain any rejection of the claims based at least in part on allegedly "old, well-known, or common" teachings or knowledge in the art, the Examiner is respectfully requested to cite a reference in support of his position as required under MPEP §2144.03. Alternatively, if the Examiner is relying upon facts within his personal knowledge, the Examiner is respectfully requested to file an affidavit establishing those facts pursuant to MPEP §2144.03.

b. Phares Does not Disclose or Suggest LEDs

During the telephone conference, Applicants' representative and the Examiners also briefly discussed statements in the Office Action regarding Phares' lack of disclosure in connection with LEDs.

For example, in item 5 on page 3, the Office Action stated that although Phares fails to literally or explicitly disclose LEDs, one skilled in the art would understand or recognize that Phares' light elements represent LEDs (e.g., as illustrated in Phares' Figs. 6-8). The Office Action further stated that any other light elements, such as incandescent lights, halogen lamps, fluorescent lamps, or electroluminescent devices allegedly "must require [a] capacitive device or ballast to obtain [a] charging voltage for initiating the illumination," and that allegedly "only LEDs do not need any capacitive device or ballast for starting illumination." Hence, it appeared that the Office Action reasoned that since Phares did not disclose or illustrate any capacitive devices or ballasts, the disclosed lighting elements necessarily must then be LEDs.

Applicants' representative expressed disagreement with the foregoing assertions, and respectfully pointed out that the reasoning in the Office Action regarding capacitive devices or ballasts is flawed; in particular, at least incandescent lights do not require any capacitive device or ballast to initiate illumination. Accordingly, since Phares is completely silent regarding the types of lighting elements that would be suitable for Phares' lighting system, it is entirely possible that Phares' lighting elements could be incandescent lights. The Examiners did not provide much comment in response to the foregoing, but merely indicated that they would take this into consideration when reviewing this response.

D. Discussion of Proposed Amendments to the Claims

Finally, during the telephone conference, Applicants' representative and the Examiners discussed possible amendments to some of Applicants' independent claims that would move the application forward toward allowance and issuance of a patent. In particular, while Applicants believe that the claims prior to any amendments herein indeed were patentable over Phares and the other references of record, Applicants nonetheless were willing to consider amendments to the claims that would address any remaining concerns the Examiners might have regarding the allowability of the claims.

Accordingly, various suggestions for claim amendments were proposed, particularly in connection with claims 1 and 68 (as discussed further below in the next section). In particular, amendments to claims 1 and 68 were proposed to clarify that the LED system was placed so as to project light onto an object, such that an observer sees at least some of the light substantially indirectly via the object, and not directly from the LED system. Again, although the Examiners

reserved final judgment as to the allowability of the claims, at least Examiner Vu indicated that the suggested amendments, as implemented herein, might place claims 1 and 68 in condition for allowance.

While Applicants appreciate the Examiners' comments and suggestions regarding the claim amendments, Applicants respectfully believe, however, that the claims as pending before the proposed amendments distinguished over the references of record and did not require further amendment. Accordingly, the claims have been amended herein primarily to advance the prosecution of this case and accelerate the issuance of a patent, and Applicants respectfully reserve the right to file one or more related applications directed to the subject matter of the claims prior to the amendments herein.

II. Applicants' Claims as Pending Distinguish Over the References of Record

A. Claims 1, 2, 8-26, and 58-60

Independent claim 1, as amended, is directed to a method for attracting attention from an observer to a retail display. The method comprises acts of providing an LED system to generate light of a range of colors within a color spectrum, placing the LED system to project the light, when generated, onto the retail display such that the observer sees at least some of the light substantially indirectly via the retail display and not directly from the LED system, and generating the light so as to illuminate the retail display.

As discussed above, Phares does not disclose or suggest either an LED system or projecting light onto a retail display, as recited in claim 1. More generally, Phares neither discloses nor suggests any lighting system that projects light onto any other object for the purposes of attracting attention from an observer to the object. In contrast to Phares, claim 1 recites a method for attracting attention from an observer to a retail display, wherein one act of the method includes placing an LED system to project light onto the retail display. Since Phares fails to disclose or suggest at least these acts of claim 1, claim 1 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 1 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claims 2, 8-26, and 58-60 depend from claim 1 and are allowable for at least the same reasons.

B. Claims 41 and 61

Independent claim 41 is directed to an apparatus comprising at least one LED, and an addressable controller having an alterable address. The controller has a signal generator to generate control signals to control light emitted by the at least one LED. The apparatus of claim 41 also comprises a receiver coupled to the addressable controller to receive data corresponding to the alterable address and indicative of the light to be emitted by the at least one LED. The apparatus further comprises a non-opaque container containing a non-opaque liquid and arranged such that the non-opaque container is illuminated from the inside by the light generated by the at least one LED.

As discussed above, Phares does not disclose or suggest either an LED or a non-opaque container, as recited in claim 41. More generally, Phares neither discloses nor suggests any lighting system that illuminates any other object. Since Phares fails to disclose or suggest multiple elements of claim 41, claim 41 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 41 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claim 61 depends from claim 41, and is allowable for at least the same reasons.

C. Claims 42 and 62

Independent claim 42 is directed to an apparatus comprising a vending machine, and an illumination system disposed within the vending machine for illuminating the vending machine. The illumination system comprises at least one LED and an addressable controller having an alterable address. The controller has a signal generator to generate control signals to control light emitted by the at least one LED. The apparatus of claim 42 further comprises a receiver coupled to the addressable controller to receive data corresponding to the alterable address and indicative of the light to be emitted by the at least one LED.

As discussed above, Phares does not disclose or suggest either an LED or a vending machine, as recited in claim 42. More generally, Phares neither discloses nor suggests any lighting or illumination system that illuminates any other object. Since Phares fails to disclose or suggest multiple elements of claim 42, claim 42 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 42 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claim 62 depends from claim 42 and is allowable for at least the same reasons.

D. Claims 45-48, 50, and 63-65

Independent claim 45 is directed to an article of clothing comprising an LED system including at least one LED, and a microprocessor that controls the at least one LED.

As discussed above, Phares does not disclose or suggest either an LED system or an article of clothing, as recited in claim 45. Thus, claim 45 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 45 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claims 46-48, 50, 63 and 65 depend from claim 45 and are allowable for at least the same reasons. Claim 64 also depends from claim 45, but was rejected under 35 U.S.C. §112, second paragraph, for being indefinite. Amendments to claim 64 that address this rejection are discussed further below. In light of these amendments, claim 64 also is believed to be in allowable condition for at least the same reasons as claim 45.

E. Claim 51-54, 56, and 57

Independent claim 51 is directed to a method for illuminating a retail display. The method comprises acts of providing an LED system that generates light of a range of colors within a color spectrum in response to an activation signal, directing the light toward the retail display, and controlling the activation signal to vary the range of colors of the light over time, whereby the retail display is affected with color-changing illumination.

As discussed above in connection with claim 1, Phares does not disclose or suggest either an LED system or a retail display, as recited in claim 51. Moreover, nowhere in the reference does Phares disclose or suggest any illumination system that responds to an activation signal so as to vary a range of colors of generated light over time to affect a retail display with color-changing illumination. Since Phares fails to disclose or suggest several features of claim 51, claim 51 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 51 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claims 52-54, 56, and 57 depend from claim 51 and are allowable for at least the same reasons.

F. Claims 66 and 67

Independent claim 66 is directed to a method for attracting attention from an observer. The method of claim 66 comprises acts of providing an LED system to generate light of a range of colors within a color spectrum, positioning at least one object selected from the group consisting of a stencil and gobo between the LED system and a surface, and generating light so as to project light through the object onto the surface.

As discussed above, Phares does not disclose or suggest an LED system, a stencil, or a gobo, as recited in claim 66. Moreover, nowhere in the reference does Phares disclose or suggest any illumination system that projects light through an object onto a surface. Since Phares fails to disclose or suggest several features of claim 66, claim 66 patentably distinguishes over Phares and is in condition for allowance. Therefore, the rejection of claim 66 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claim 67 depends from claim 66 and is allowable for at least the same reasons.

G. Claims 68-73

Independent claim 68, as amended, is directed to a method for attracting attention from an observer. The method comprises acts of providing an LED system to generate light of a range of colors within a color spectrum, placing the LED system to project the light, when generated, onto an object such that the observer sees at least some of the light substantially indirectly via the object and not directly from the LED system, the object being selected from the group consisting of a display case, a vending machine, a beverage container, and an advertising display, and generating the light so as to illuminate the object.

As discussed above, Phares does not disclose or suggest either an LED system or various objects that are illuminated by a lighting system, such as a display case, a vending machine, a beverage container, and an advertising display, as recited in claim 68. More generally, Phares neither discloses nor suggests any lighting system that projects light onto any other object for the purposes of attracting attention from an observer to the object. In contrast to Phares, claim 68 recites a method for attracting attention from an observer, wherein one act of the method includes placing an LED system to project light onto an object. Since Phares fails to disclose or suggest several features of claim 68, claim 68 patentably distinguishes over Phares and is in

condition for allowance. Therefore, the rejection of claim 68 over 35 U.S.C. §103 (a) as being obvious over Phares should be withdrawn.

Claims 69-73 depend from claim 68 and are allowable for at least the same reasons.

H. General Comments on the Dependent Claims

For the sake of brevity, Applicants believe that it is unnecessary at this time to argue the allowability of each of the dependent claims individually. However, Applicants do not concur that the basis for the rejection of any of the dependent claims is proper. In fact, many of the dependent claims recite features that are completely absent from, and not suggested by, the Phares reference (as well as the other references of record). Therefore, Applicants reserve the right to specifically address the separate patentability of each dependent claim in the future, if deemed necessary.

III. Claim Rejections under 35 U.S. C. §112

In item 3 on page 2, the Office Action indicated that claim 64 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for using the word “may”. Claim 64 has been amended herein to remove the word “may” from the claim. Accordingly, the rejection of claim 64 under 35 U.S.C. §112, second paragraph, should be withdrawn.

IV. New Claims

Claims 74-76 have been added to further define Applicants’ contribution to the art.

New claim 74 is directed to an illumination method, comprising acts of providing an LED system to generate light of a range of colors within a color spectrum, and placing the LED system to project the light, when generated, onto an object so as to illuminate the object. The object is selected from the group consisting of a display case, a vending machine, a beverage container, and an advertising display. The LED system is positioned such that at least some of the projected light, upon illumination of the object, is directed to an observer so that the observer sees at least some of the projected light substantially indirectly via the object, and not directly from the LED system.

New claim 75 is directed to an illumination method, comprising acts of providing an LED system to generate light of a range of colors within a color spectrum, and placing the LED

system to affect an object with the light, the object being selected from the group consisting of a display case, a vending machine, a beverage container, and an advertising display. The method of claim 75 also comprises acts of generating the light so as to illuminate at least a portion of the object, and varying the color of the generated light over a period of time so that an observer perceives a change in color associated with the object being affected by the generated light due to a selective color interaction between the generated light and the object.

New claim 76 is directed to an illumination method, comprising acts of providing an LED system to generate light of a range of colors within a color spectrum, and placing the LED system to affect an object with the light, the object being selected from the group consisting of a display case, a vending machine, a beverage container, and an advertising display. The method of claim 76 also comprises acts of generating the light so as to illuminate the object, and varying the color of the generated light over a period of time so that the observer perceives an illusion of motion in at least a portion of the object being affected by the generated light due to a selective color interaction between the generated light and the object.

As discussed above, neither Phares nor any other reference of record discloses or suggests either an LED system or various objects that are illuminated by a lighting system, such as a display case, a vending machine, a beverage container, and an advertising display, as recited respectively in claims 74, 75, and 76. Furthermore, the references of record neither disclose nor suggest any LED system that projects light onto any other object for the purpose of illuminating the object. Since the references of record fail to disclose or suggest several features of each of claims 74, 75, and 76, these claims are believed to be in condition for allowance.

V. Amendments to the Drawings and Specification

In item 1 on page 2, the Office Action indicated that the drawings were objected to under 37 C.F.R. §1.83(a) for not showing the sensor recited in claim 46. Applicants have amended Fig. 100 to illustrate a sensor 4123 associated with the article of clothing comprising an LED system. The specification also has been amended accordingly, in the discussion associated with Fig. 100, by inserting on line 15 of page 141 the reference character 4123 for the sensor illustrated in Fig. 100. No new matter is added. In view of the foregoing amendments, the objection to the drawings should be withdrawn.

VI. Various Issues Relating to Information Disclosure Statements

Applicants have noted that on the form PTO-1449 (dated May 11, 2001) attached to the present Office Action, the Examiner indicated that allegedly no copies were received of the references labeled as AE, AF, AG, and AH. While Applicants' records indicate that copies of these four references indeed were filed with the PTO on May 11, 2001 together with an Information Disclosure Statement and accompanying form PTO-1449, Applicants nonetheless provide here, attached to this response, additional copies of these references for the Examiner's convenience. The Examiner is respectfully requested to acknowledge reviewing these references by providing, in subsequent correspondence to the Applicants, a copy of the form PTO-1449 initialed by the Examiner next to each of the references identified above.

Additionally, Applicants note that the present Office Action crossed in the mail with another Information Disclosure Statement filed by the Applicants on October 12, 2001. A copy of this Information Disclosure Statement and accompanying Form PTO-1449 as filed on October 12, 2001 is provided here, attached to this response, for the Examiner's reference. Applicants respectfully request that the Examiner acknowledge reviewing the cited references by providing, in subsequent correspondence to the Applicants, an initialed copy of the form PTO-1449 filed on October 12, 2001.

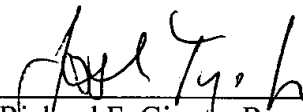
VII. Conclusion

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below to discuss any outstanding issues relating to the allowability of the application.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
Lys, et al., Applicants

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x3/10/02

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on line 3 of page 141 has been rewritten as follows:

LED systems of the present invention may be imbedded in articles of clothing to permit light to be projected from the clothing (Fig. 100). The LEDs may be mounted on a flexible circuit board and covered with latex, vinyl, plastic, cotton, etc. This embodiment includes a method for creating light weight flexible material suited for the construction of clothing. Sandwich of fabrics and silicone are provided, which then are lit by an LED. Conventional clothing using LEDs includes discrete LEDs in the form of words or patterns formed by the points of light. The LED-based clothing of the present invention may light clothing fabric without protruding. The LED-based clothing of the present invention may be controlled via a radio frequency or infrared signal by a remote control or a master controller having a transmitter element. The clothing can be made to fit the wearer in a manner that permits disposition of the LEDs in close proximity over the body, permitting the user's external appearance to be modified, for example to simulate an appearance, such as nudity or a particular type of clothing. The clothing can be paired with a sensor **4123** to allow the LED system to display a condition of the user, such as heart rate, or the like.

IN THE CLAIMS

Claims 1, 64, and 68 have been amended as follows:

1. (Twice Amended) A method for attracting attention from an observer to a retail display, the method comprising acts of:
 - providing an LED system to generate light of a range of colors within a color spectrum;
 - placing the LED system to **[affect] project the light, when generated, onto** the retail display **[with the light] such that the observer sees at least some of the light substantially indirectly via the retail display, and not directly from the LED system;** and
 - generating the light so as to illuminate the retail display.

64. (Amended) The article of clothing of claim 45, wherein the LED system includes at least one LED that [may] **is adapted to** emit light at two or more wavelengths.

68. (Amended) A method for attracting attention from an observer, the method comprising acts of:

providing an LED system to generate light of a range of colors within a color spectrum;

placing the LED system to [affect] **project the light, when generated, onto** an object **[with the light] such that the observer sees at least some of the light substantially indirectly via the object, and not directly from the LED system**, the object being selected from the group consisting of a display case, a vending machine, a beverage container, and an advertising display; and

generating the light so as to illuminate the object.



Fig. 100

spectrum without accompanying heat, while maintaining the flexibility to change the parameters of the generated light.

LED systems of the present invention may be imbedded in articles of clothing to permit light to be projected from the clothing (Fig. 100). The LEDs may be mounted on a flexible circuit board and covered with latex, vinyl, plastic, cotton, etc. This embodiment includes a method for creating light weight flexible material suited for the construction of clothing. Sandwich of fabrics and silicone are provided, which then are lit by an LED.

Conventional clothing using LEDs includes discrete LEDs in the form of words or patterns formed by the points of light. The LED-based clothing of the present invention may light

clothing fabric without protruding. The LED-based clothing of the present invention may be controlled via a radio frequency or infrared signal by a remote control or a master controller having a transmitter element. The clothing can be made to fit the wearer in a manner that permits disposition of the LEDs in close proximity over the body, permitting the user's external appearance to be modified, for example to simulate an appearance, such as nudity or a particular type of clothing. The clothing can be paired with a sensor to allow the LED system to display a condition of the user, such as heart rate, or the like.

The utility of such clothing can be manifested in many ways. An LED display so disposed in the clothing can be used purely for effect, to generate dazzling patterns, visual effects, and the like. The LED displays can represent real-world images, such as the surrounding environment, or may simply reflect surrounding conditions by changing color in response to external data such as temperature, lighting conditions, or pressure. These displays might also be responsive to the proximity of a similar garment, or might receive data from transmitters in the environment. In one embodiment, the display on the clothing is responsive to pressure. Clothing of this embodiment might be worn in a sporting event to provide visual